

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of the claims in the application:

Listing of Claims:

1. (Previously Amended) A nanotextured biocompatible composite, comprising a biocompatible substrate and a mineral phase on said substrate comprising a calcium phosphate component, nanofibers of peptide amphiphiles, and poly(L-lysine), wherein said nanofibers are coupled to the poly(L-lysine) on said calcium phosphate component.
2. (Original) The composite of claim 1 wherein the calcium content of said mineral phase is less than stoichiometric, and said poly(L-lysine) is incorporated within said calcium phosphate.
3. (Original) The composite of claim 1 wherein said mineral phase is reactive with at least one of an acid and degradative enzyme.
4. (Previously Amended) The composite of claim 1 wherein at least one of said peptide amphiphiles comprises a carboxy functionality.
5. (Currently Amended) The composite of claim 4 wherein at least one of said peptide amphiphiles comprises ~~[[a]] the sequence, RGD comprising arginine, glycine and aspartic acid.~~
6. (Original) The composite of claim 4 further comprising a mammalian preosteoblast cell culture.

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7. (Original) The composite of claim 1 wherein said substrate comprises titanium.

8-20. (Cancelled).